Title of Instructional Materials: Pearson CME Project: Algebra II CC Update

Grade Level: Algebra II

Summary of Pearson CME Project: Algebra II CC Update

Overall Rating: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Standards that were missing are as follows: A-APR.1, A-CED.3, A-CED.4, F-IF.9, F-TF.1, F-TF.2, F-TF.5, S-ID.4, S-IC.1, S-IC.2, S-IC.3, S-IC.4, S-IC.5, S-IC.6, S-MD.6, S-MD.7. Also, N-CN.9 is not well developed at all and only really alluded to in a historical reference.	Important Mathematical Ideas: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Most of the standards that are addressed are well developed
Skills and Procedures: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Skills are not integrated well with the use of applications and not well connected to important mathematical ideas	Mathematical Relationships: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Several were not developed well or only mentioned with little or no discussion.

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context o the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures t help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

2. Reason abstractly and quantitatively.	
Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits o creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
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<table>
<tr><td colspan="2">3. Construct viable arguments and critique the reasoning of others.</td></tr>
<tr><td colspan="2">Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from tha which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such a objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decid whether they make sense, and ask useful questions to clarify or improve the arguments.</td></tr>
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4. Model with mathematics.	
Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicatedsituation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	
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Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

5. Use appropriate tools strategically.	
Mathematically proficient students consider the available tools when solving amathematical problem. These tools might include pencil and paper, concretemodels, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system,a statistical package, or dynamic geometry software. Proficient students aresufficiently familiar with tools appropriate for their grade or course to make sounddecisions about when each of these tools might be helpful, recognizing both theinsight to be gained and their limitations. For example, mathematically proficienthigh school students analyze graphs of functions and solutions generated using agraphing calculator. They detect possible errors by strategically using estimationand other mathematical knowledge. When making mathematical models, they knowthat technology can enable them to visualize the results of varying assumptions,explore consequences, and compare predictions with data. Mathematicallyproficient students at various grade levels are able to identify relevant externalmathematical resources, such as digital content located on a website, and use themto pose or solve problems. They are able to use technological tools to explore anddeepen their understanding of concepts.	
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6. Attend to precision.	
Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.	
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Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

7. Look for and make use of structure.	
Mathematically proficient students look closely to discern a pattern or structure.Young students, for example, might notice that three and seven more is the sameamount as seven and three more, or they may sort a collection of shapes accordingto how many sides the shapes have. Later, students will see 7 °— 8 equals thewell-remembered 7 °— 5 + 7 °— 3, in preparation for learning about the distributiveproperty. In the expression *x*2 + 9*x* + 14, older students can see the 14 as 2 °— 7 andthe 9 as 2 + 7. They recognize the significance of an existing line in a geometricfigure and can use the strategy of drawing an auxiliary line for solving problems.They also can step back for an overview and shift perspective. They can seecomplicated things, such as some algebraic expressions, as single objects or asbeing composed of several objects. For example, they can see 5 – 3(*x* – *y*)2 as 5minus a positive number times a square and use that to realize that its value cannotbe more than 5 for any real numbers *x* and *y*.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
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8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and lookboth for general methods and for shortcuts. Upper elementary students mightnotice when dividing 25 by 11 that they are repeating the same calculations overand over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation$(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding$(x - 1)(x + 1)$, $(x - 1)(x2 + x + 1)$, and $(x - 1)(x3 + x2 + x + 1)$ might lead them to thegeneral formula for the sum of a geometric series. As they work to solve a problem,mathematically proficient students maintain oversight of the process, whileattending to the details. They continually evaluate the reasonableness of theirintermediate results.

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Reviewed By: ____________________

Title of Instructional Materials: Pearson

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

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p188: Chp 2 project: Derive Heron's Formula. S's are first given the formula and asked to show how it can be written in an alternate form. S's are guided through a series of questions to help derive the formula

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

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p139: Looking at polynomial functions & linear functions that have several common pts.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: ______________________

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Documenting Alignment to the Standards for Mathematical Practice

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

p 212: Sec 3.4: (p 215 #4 - What's wrong here,) Asked [illegible] make a plausible argument.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: ______________________

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Documenting Alignment to the Standards for Mathematical Practice

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Sec 2.4 p 124 #18 Write about it, Make assumptions by applying what they know

Indicate the chapter(s), section(s), or page(s) reviewed.

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Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: ______________________

Title of Instructional Materials: Peason

Documenting Alignment to the Standards for Mathematical Practice

5. Use appropriate tools strategically.

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Sec 3.6 p225: Explore. S's use prior knowledge & a G.C. to learn about angles

Indicate the chapter(s), section(s), or page(s) reviewed.

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Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

6. Attend to precision.

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Sec 5.8 p439: Minds in Action

p443: #16 s's learn to write with precision using correct vocabulary

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: ______ ______

Title of Instructional Materials: Pearson

Documenting Alignment to the Standards for Mathematical Practice

7. Look for and make use of structure.

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p170: Factoring a sum or difference of cubes. [illegible]
[illegible] to look for a general structure

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

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p 157: Habits of mind: use a different [illegible] to get the same answer. S's learn to make generalizations from examples.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Perform arithmetic operations with complex numbers.

N-CN.1

Know there is a complex number *i* such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.

Sec 3.2 - 3.4

3.4 - definition stated

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas: 1 — 2 — 3 — 4 (4 circled)

Developed over 3 sections. uses investigation

Skills and Procedures: 1 — 2 — 3 — 4 (4 circled)

many writing questions

Mathematical Relationships: 1 — 2 — 3 — 4 (3 circled)

No real world problems but ties in many other concepts

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating: 1 — 2 — 3 — 4 (4 circled)

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

RW- real world

Perform arithmetic operations with complex numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.2 Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. Note: i^2 as highest power of i. Sec 3.4 – 3.6 opperations w/ complex numbers **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 No RW problems, Skills and Procedures 1 2 3 4 S's asked to expand & apply what they know ! Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: Pearson

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

<table>
<tr><td>Use complex numbers in polynomial identities and equations.</td><td>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</td></tr>
<tr><td>N-CN.7
Solve quadratic equations with real coefficients that have complex solutions.
Note: Polynomials with real coefficients.

Sec 3.3 – 3.4 p209 # 3, 12
p217 # 15
3, 12

Indicate the chapter(s), section(s), and/or page(s) reviewed.</td><td>Important Mathematical Ideas 1 2 3 4
developed p 206 Ex

Skills and Procedures 1 2 3 4
Not many practice problems

Mathematical Relationships 1 2 3 4

Summary / Justification / Evidence</td></tr>
<tr><td></td><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
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</table>

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Use complex numbers in polynomial identities and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.8 (+) Extend polynomial identities to the complex numbers. *For example, rewrite* $x^2 + 4$ *as* $(x + 2i)(x - 2i)$. Note: Polynomials with real coefficients. Sec 3.4 Ex 14 only one ex. S's asked to show that $x^2+1=(x+i)(x-i)$ **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: Peason

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Use complex numbers in polynomial identities and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.9 (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials. Note: Polynomials with real coefficients. Sec 3.4 – talked about 3.12 - p 267 - historical perspective **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 S's must apply what they know Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 4

Reviewed By:

Title of Instructional Materials:

ALGEBRA II — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.1a 1. Interpret expressions that represent a quantity in terms of its context.* a. Interpret parts of an expression, such as terms, factors, and coefficients. Note: Polynomial and rational. Sec 2.0: basic polynomial vocab stated Sec 2.8: Applying definitions **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 S's asked to explain about a polynomial Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** S's are asked to explain using correct vocabulary **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.1b 1. Interpret expressions that represent a quantity in terms of its context.* b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P.* Note: Polynomial and rational. 2.6: Finding polynomial factors 2.10–2.14: Factoring higher order polynomials 7.6: p610: Example $\Sigma(3i-2)=\frac{3n^2-n}{2}$ **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 [illegible] p6[illegible] Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 RW problems? **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By:

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.

A-SSE.2

Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.*

Note: Polynomial and rational.

2.12 - 2.14: factoring

3.3 - 3.5: imaginary numbers

5.1 - 5.3: exponents properties

5.5: exponent properties

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

1 2 3 4

look for similarities - [illegible] like cubic [illegible]

Skills and Procedures

1 2 3 4

Mathematical Relationships

1 2 3 4

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

RW examples

Overall Rating

1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.4 Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. *For example, calculate mortgage payments.** 1.11 Factorial Notation 7.11-7.13 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Applied to repeating decimals, many word problems Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
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Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Perform arithmetic operations on polynomials.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. Note: Beyond quadratic. Not covered **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not covered
	Overall Rating 0 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

<table>
<tr><th>Understand the relationship between zeros and factors of polynomials.</th><th>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</th></tr>
<tr><td>A-APR.2

Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder on division by x – a is p(a), so p(a) = 0 if and only if (x – a) is a factor of p(x).

2.9-2.10 p151: Remainder Thm

Indicate the chapter(s), section(s), and/or page(s) reviewed.</td><td>Important Mathematical Ideas — 1 2 3 4 (3 circled)

Skills and Procedures — 1 2 3 4 (4 circled)
S's asked to prove the remainder thm
p160 # 15

Mathematical Relationships — 1 2 3 4 (4 circled)

Summary / Justification / Evidence</td></tr>
<tr><td></td><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td></td><td>Overall Rating — 1 2 3 4 (4 circled)</td></tr>
</table>

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Understand the relationship between zeros and factors of polynomials.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.3 Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial. 2.10 : finding the factors of polynomials 2.12 : factoring quadratics 2.13 factoring cubics **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not asked to find the zeros & construct a rough graph
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Use polynomial identities to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.4 Prove polynomial identities and use them to describe numerical relationships. *For example, the polynomial identity* $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$ *can be used to generate Pythagorean triples.* 2.10 p 159: #6, 7, 8, 9, 10, 11 3.1 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Establish the following identity Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Use polynomial identities to solve problems.

A-APR.5

(+) Know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.[1]

7.15 p 662: S's look for a pattern to learn in binomial thm

7.16 - p668. Binomial Thm

1 The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

1 2 3 4

good investigation

Skills and Procedures

1 2 3 4

not many practice problem, no difference problems; or one with taking root of

Mathematical Relationships

1 2 3 4

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating

1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Rewrite rational expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-APR.6 Rewrite simple rational expressions in different forms; write *a(x)/b(x)* in the form *q(x)* + *r(x)/b(x)*, where *a(x)*, *b(x)*, *q(x)*, and *r(x)* are polynomials with the degree of *r(x)* less than the degree of *b(x)*, using inspection, long division, or, for the more complicated examples, a computer algebra system. Note: Linear and quadratic denominators. 2.9 Not written specifically that can p152 # 2 + 3 long division **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 p154 # 14 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): No synthetic division
	Overall Rating: 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Rewrite rational expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.7 (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions. Note: Linear and quadratic denominators. 2.15: S's are asked to simplify, add & sub rational expressions **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** multiply & divide, closed concept? Overall Rating: 1 2 3 4

Reviewed By: ______

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.1 Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.** Note: Equations using all available types of expressions, including simple root functions. Sec 1.6-1.9: Lines of best fit Sec 5.7-5.9: exponential **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): root functions quadratic rational
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: ____________________

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* Note: Equations using all available types of expressions, including simple root functions. 4.4 4.5 4.7 systems of Eq but I think all the equations are provided for the 5's **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By:

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.** Note: Equations using all available types of expressions, including simple root functions. Not Listed **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): This standard is not covered
	Overall Rating 0 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: ____________________

ALGEBRA II — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law $V = IR$ to highlight resistance R.** Note: Equations using all available types of expressions, including simple root functions. Not Listed **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): This standard is not covered
	Overall Rating 0 1 2 3 4

Reviewed By: ____________

Title of Instructional Materials: Pearson

ALGEBRA II — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Understand solving equations as a process of reasoning and explain the reasoning.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. Note: Simple radical and rational. 2.12 Ex 4: $2x - \frac{3}{x} = 5$ (1 problem) 2.14 Ex 6: radical eq (5 problems) **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Does not talk about extraneous solutions
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Represent and solve equations and inequalities graphically.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.11 Explain why the *x*-coordinates of the points where the graphs of the equations *y* = *f(x)* and *y* = *g(x)* intersect are the solutions of the equation *f(x)* = *g(x)*; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where *f(x)* and/or *g(x)* are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* Note: Combine polynomial, rational, radical, absolute value, and exponential functions. 2.6-2.7: polynomial 2.12: Ex 5 - quadratic 5.7: exponential 5.14: log **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Absolute value
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.** Note: Include rational, square root and cube root; emphasize selection of appropriate models. 5.7: Exp Functions ↑↓ Graphs 5.14: Log Functions 6.1-6.4 - quad + cubic functions, sq root, rational 8.6-8.8: sine + cosine graphs - period **Indicate the chapter(s), section(s), and/or page(s) reviewed.** p 504: S's have worked with all basic functions	Important Mathematical Ideas: 1 — 2 — **3** — 4 Skills and Procedures: 1 — 2 — **3** — 4 Mathematical Relationships: 1 — 2 — **3** — 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): end behavior, max & min
	Overall Rating: 1 — 2 — **3** — 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.** Note: Emphasize selection of appropriate models. 2, 2 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.* Note: Emphasize selection of appropriate models. 1.3 constant differences for slope (tables) 1.4 p24 #3 - 3 plotted pts **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 (3 circled) Skills and Procedures: 1 2 3 4 (2 circled) graphs? Mathematical Relationships: 1 2 3 4 (3 circled) **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4 (3 circled)

Reviewed By: ____________________

Title of Instructional Materials: ____________________

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-IF.7b 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. Note: Focus on using key features to guide selection of appropriate type of model function. 2.2 p107: 9 - piecewise ? 2.4 **Indicate the chapter(s), section(s), and/or page(s) reviewed.** p501: s's graph quad, cubic sq root + abs value	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not sure when s's learn to graph these functions, step function Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7c 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. Note: Focus on using key features to guide selection of appropriate type of model function. 2.5: p 130: 14-18 } Identify zeros to graph? 2.7: p 142: 6-9 } 6.2-6.4: quadratic, cubic abs value, sq root **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): end behavior?
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7e 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude. Note: Focus on using key features to guide selection of appropriate type of model function. 5.7: exp functions by hand w/a GC #8 p 433 5.14: log - use a GC to graph 8.7 - sine & cosine 8.8 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): vertical shift of sine & cosine midline & amplitude
	Overall Rating: 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.8a 8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. Note: Focus on using key features to guide selection of appropriate type of model function. 6.7 : factoring & completing the sq **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): extreme values symmetry
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: ____________________

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.8b 8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, and classify them as representing exponential growth or decay.* Note: Focus on using key features to guide selection of appropriate type of model function. 5.8 - 5.10 growth, decay **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 Money - Interest Rate **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: ______________________________

Title of Instructional Materials: ______________________________

ALGEBRA II — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.* Note: Focus on using key features to guide selection of appropriate type of model function. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): This standard not covered
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

<table>
<tr><td>Build a function that models a relationship between two quantities.</td><td>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</td></tr>
<tr><td>F-BF.1b
1. Write a function that describes a relationship between two quantities.*
b. Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.
Note: Include all types of functions studied.

2.6 : Lagrange method is used
2.7

Indicate the chapter(s), section(s), and/or page(s) reviewed.</td><td>Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4
Real world problems

Mathematical Relationships 1 2 3 4

Summary / Justification / Evidence</td></tr>
<tr><td></td><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td></td><td>Overall Rating 1 2 3 4</td></tr>
</table>

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

Build new functions from existing functions.

F-BF.3

Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k\,f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.*

Note: Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types.

6.1: p 501: quad, cubic, sq root, abs value
p503: rational
6.3: ↑↓←→
6.4: scaling + reflecting

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas: 1 2 3 4

Skills and Procedures: 1 2 3 4

Mathematical Relationships: 1 2 3 4

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating: 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

Build new functions from existing functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-BF.4a 4. Find inverse functions. a. Solve an equation of the form *f(x) = c* for a simple function *f* that has an inverse and write an expression for the inverse. *For example, f(x) =2 x³ or f(x) = (x+1)/(x–1) for x ≠ 1.* Note: Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types. 2.4 p 122 #6 rational #14 linear	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** Not many practice problems
Indicate the chapter(s), section(s), and/or page(s) reviewed. p 121: Find the inverse of each basic function p 119: cubic functions	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

<table>
<tr><td>Construct and compare linear, quadratic, and exponential models and solve problems.</td><td>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</td></tr>
<tr><td>F-LE.4
For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.*
Note: Logarithms as solutions for exponentials.
5.12: evaluate logs using exponents & a GC
5.13: solving simple log problems
p 474 #12, 25
Approx logs
base 10, 2
Indicate the chapter(s), section(s), and/or page(s) reviewed.</td><td>Important Mathematical Ideas — 1 2 3 4 (3)
Skills and Procedures — 1 2 3 4 (3)
Mathematical Relationships — 1 2 3 4 (3)
Summary / Justification / Evidence</td></tr>
<tr><td></td><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
natural logs</td></tr>
<tr><td></td><td>Overall Rating — 1 2 3 4 (3)</td></tr>
</table>

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

Extend the domain of trigonometric functions using the unit circle.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-TF.1 Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Radian measure is not discussed
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

Extend the domain of trigonometric functions using the unit circle.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-TF.2 Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): This standard is not covered
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: ____________________

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

Model periodic phenomena with trigonometric functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-TF.5 Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): This standard is not covered
	Overall Rating: 1 2 3 4

Reviewed By:

Title of Instructional Materials: Pearson

ALGEBRA II — FUNCTIONS (F)

Trigonometric Functions (F-TF)

Prove and apply trigonometric identities.

F-TF.8

Prove the Pythagorean identity sin2(θ) + cos2(θ) = 1 and use it to find sin(θ), cos(θ), or tan(θ) given sin(θ), cos(θ), or tan(θ) and the quadrant of the angle.

8.4 p 704: prove pythag identity

find $\sin\theta$ + $\cos\theta$

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4

Mathematical Relationships 1 2 3 4

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

$\tan\theta$?

Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

<table>
<tr><th>Summarize, represent, and interpret data on a single count or measurement variable.</th><th>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</th></tr>
<tr><td rowspan="3">S-ID.4

Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

Indicate the chapter(s), section(s), and/or page(s) reviewed.</td><td>Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4

Mathematical Relationships 1 2 3 4

Summary / Justification / Evidence</td></tr>
<tr><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

This standard is not covered</td></tr>
<tr><td>Overall Rating 1 2 3 4</td></tr>
</table>

Reviewed By: ____________________

Title of Instructional Materials: Pearson

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

<table>
<tr><th>Understand and evaluate random processes underlying statistical experiments.</th><th>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</th></tr>
<tr><td rowspan="3">S-IC.1
Understand statistics as a process for making inferences about population parameters based on a random sample from that population.

Indicate the chapter(s), section(s), and/or page(s) reviewed.</td><td>Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4

Mathematical Relationships 1 2 3 4

Summary / Justification / Evidence</td></tr>
<tr><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
This standard is not covered</td></tr>
<tr><td>Overall Rating 1 2 3 4</td></tr>
</table>

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Understand and evaluate random processes underlying statistical experiments.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
S-IC.2 Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. *For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): This standard is not covered
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-IC.3 Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): This standard is not currently covered but may be in a supplement
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: Pearson

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-IC.4 Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not covered but may be in a supplement
	Overall Rating 1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: Pearson

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
S-IC.5 Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not covered supplement?
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Making Inferences and Justifying Conclusions (S-IC)

Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
S-IC.6 Evaluate reports based on data. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not covered
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: Pearson

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Using Probability to Make Decisions (S-MD)

Use probability to evaluate outcomes of decisions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-MD.6 (+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator). Note: Include more complex situations. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not covered
	Overall Rating 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — STATISTICS AND PROBABILITY (S)

Using Probability to Make Decisions (S-MD)

Use probability to evaluate outcomes of decisions	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-MD.7 (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game). Note: Include more complex situations. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not covered
	Overall Rating 1 2 3 4

Reviewed By:

Title of Instructional Materials: CME Project: Alg II CC update
Pearson

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Sections: 1.1, 1.3, 1.5, 1.6, 1.8, 1.9, 1.12
2.2, 2.4, 2.6, 2.7, 2.10, 2.13, 2.14
3.3, 3.11 along w/ end of chapter projects

Summary/Justification/Evidence

The student dialogues, recurring themes, and projects allow students to see and act on this throughout the book

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Overall Rating

1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Sect: 2.5 – 2.7, 3.5, 3.8, 4.8, 7.4

Summary/Justification/Evidence

met very well thru the use of "Minds in Action" student dialogues

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Overall Rating

1 2 3 4

Reviewed By: ______________________________

Title of Instructional Materials: ______________________________

Documenting Alignment to the Standards for Mathematical Practice

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), or page(s) reviewed.

Sections: 1.3, 2.2, 3.3, 3.4, 3.12, 4.9, 5.7-5.9, 5.12, 5.13, 5.15, 6.3, 6.9, 8.0, 8.3-8.7

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

The "Developing Habits of Mind" text and "What's wrong here" problems encourage constructing viable arguments and critiquing the reasoning of others.

Overall Rating

1 — 2 — 3 — X — 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Indicate the chapter(s), section(s), or page(s) reviewed.

Sect. 1-2, 1.6, 1-11, 1.12, 2.4, 2.9, 4.3-4.5, 4.7, ~~4.10~~ 4.10,
4.12, 4.13, 5.10, 5.15, 7.1, 7.11

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

A wide array of mathematical models are used and ~~student~~ students interpret, build, and move between them. students use mathematics to build approximate models and find lines of best fit using unique approaches

Overall Rating

1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Indicate the chapter(s), section(s), or page(s) reviewed.

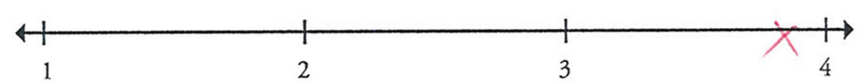
Sect. 1-2, 1.7, 1.11, 1.12, 2.2, 2.3, 2.6, 2-7, 2.9, 2.12
3.6, 3.9-3.11, 4.3, 4.7, 4.8; 5.11-5.14, 6.1, 8.7, Appendix

Summary/Justification/Evidence

Extensive use of the TI-Inspire is encouraged and a handbook is included in the appendix. Experimentation and modelling w/ technology is used throughout.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Overall Rating



Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Indicate the chapter(s), section(s), or page(s) reviewed.

Sections: 1.8, 2.3, 2.7, 2.11, 3.12, 4.6, 5.12, 6.2, 6.7, 7.7, 7.10, 8.6

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

The "Minds in Action" dialogues and "Habits of mind" are woven throughout to constantly remind students.

Overall Rating

1 2 3 X 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

Documenting Alignment to the Standards for Mathematical Practice

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

Indicate the chapter(s), section(s), or page(s) reviewed.

Sect. 1.4, 1.5, 2.8, 2.12-2.14, 3.2, 3.12, 3.13,
5.5, 5.11, 6.4, 6.6, 7.3, 7.6, 8.5

Summary/Justification/Evidence

Looking for patterns and structure seems to be thematic in this text. This idea is used to develop key ideas and definitions in many instances

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Overall Rating

1 2 3 4

Reviewed By: ____________________

Title of Instructional Materials: ____________________

Documenting Alignment to the Standards for Mathematical Practice

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), section(s), or page(s) reviewed.

Sect: 2.3, 2.4, 2.10, 3.9, 4.2, 4.11, 5.2, 5.4, 6.2, 7.15, 8.14

Summary/Justification/Evidence

This is consistently brought to the student's attention thru the "Habits of mind" and used throughout the text in a guiding manner

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Overall Rating

1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

<table>
<tr><td>Perform arithmetic operations with complex numbers.</td><td>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</td></tr>
<tr><td rowspan="3">N-CN.1

Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.

Indicate the chapter(s), section(s), and/or page(s) reviewed.
Sections
3.2 – 3.4</td><td>Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4

Mathematical Relationships 1 2 3 4

Summary / Justification / Evidence
The important mathematical ideas are not related in the context of real-world examples</td></tr>
<tr><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td>Overall Rating 1 2 3 4</td></tr>
</table>

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

<table>
<tr><td>Perform arithmetic operations with complex numbers.</td><td>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</td></tr>
<tr><td>N-CN.2
Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.
Note: i^2 as highest power of i.

Indicate the chapter(s), section(s), and/or page(s) reviewed.
Sect 3.4 - 3.6</td><td>Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4

Mathematical Relationships 1 2 3 4

Summary / Justification / Evidence
Not related to connections outside mathematics
- no real-world</td></tr>
<tr><td></td><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td></td><td>Overall Rating 1 2 3 4</td></tr>
</table>

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Use complex numbers in polynomial identities and equations.

N-CN.7

Solve quadratic equations with real coefficients that have complex solutions.

Note: Polynomials with real coefficients.

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Sect. 3.3, 3.4, 3.12

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas — 1 2 3 4

Skills and Procedures — 1 2 3 4

Mathematical Relationships — 1 2 3 4

Summary / Justification / Evidence

Not integrated well with use of applications

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating — 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

Use complex numbers in polynomial identities and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-CN.8 (+) Extend polynomial identities to the complex numbers. *For example, rewrite* $x^2 + 4$ *as* $(x + 2i)(x - 2i)$. Note: Polynomials with real coefficients. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Sect 3.4	Important Mathematical Ideas 1 2 3 X 4 Skills and Procedures 1 2 X3 4 Mathematical Relationships 1 2 3 X 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 X3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — NUMBER AND QUANTITY (N)

The Complex Number System (N-CN)

<table>
<tr><th>Use complex numbers in polynomial identities and equations.</th><th colspan="2">Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</th></tr>
<tr><td rowspan="6">N-CN.9
(+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.
Note: Polynomials with real coefficients.

Indicate the chapter(s), section(s), and/or page(s) reviewed.
Sect 3.4, 3.12</td><td>Important Mathematical Ideas</td><td>1 — 2 — 3 — 4</td></tr>
<tr><td>Skills and Procedures</td><td>1 — 2 — 3 — 4</td></tr>
<tr><td>Mathematical Relationships</td><td>1 — 2 — 3 — 4</td></tr>
<tr><td colspan="2">Summary / Justification / Evidence</td></tr>
<tr><td colspan="2">Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
FTA is not developed at all. It is only alluded to in a historical reference</td></tr>
<tr><td>Overall Rating</td><td>1 — 2 — 3 — 4</td></tr>
</table>

Reviewed By: ______________________________

Title of Instructional Materials: ______________________________

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

Build a function that models a relationship between two quantities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.1b 1. Write a function that describes a relationship between two quantities.* b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.* Note: Include all types of functions studied. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Sect 2.6, 2.7	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: ______________________________

Title of Instructional Materials: ______________________________

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

Build new functions from existing functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
F-BF.3 Identify the effect on the graph of replacing *f(x)* by *f(x) + k, k f(x), f(kx)*, and *f(x + k)* for specific values of *k* (both positive and negative); find the value of *k* given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.* Note: Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Sect. 6.1, 6.3, 6.4	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 4

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — FUNCTIONS (F)

Building Functions (F-BF)

<table>
<tr><th>Build new functions from existing functions.</th><th>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</th></tr>
<tr><td>F-BF.4a
4. Find inverse functions.
a. Solve an equation of the form f(x) = c for a simple function f that has an inverse and write an expression for the inverse. For example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for $x \neq 1$.
Note: Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types.

Indicate the chapter(s), section(s), and/or page(s) reviewed.
Sect 2.4</td><td>Important Mathematical Ideas: 1 — 2 — 3 — 4 (X marked between 3 and 4)
Skills and Procedures: 1 — 2 — 3 — 4 (X marked between 3 and 4)
Mathematical Relationships: 1 — 2 — 3 — 4 (X marked between 3 and 4)

Summary / Justification / Evidence
well presented and developed thru investigation</td></tr>
<tr><td></td><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td></td><td>Overall Rating: 1 — 2 — 3 — 4 (X marked between 3 and 4)</td></tr>
</table>

Reviewed By: ______________________

Title of Instructional Materials: ______________________

ALGEBRA II — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.4 For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.* Note: Logarithms as solutions for exponentials.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** Text provides a thorough investigation using habits of mind and integrating the use of technology
Indicate the chapter(s), section(s), and/or page(s) reviewed. Sect. 5.12, 5.13	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4